

Nelson, Bettie L

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Subject: Abstract: Leppälä et al. (1999), Alcohol Consumption and Stroke Incidence in Male Smokers

FYI.

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Clinical Investigation and Reports

Alcohol Consumption and Stroke Incidence in Male Smokers

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Background—Studies on alcohol consumption and incidences of stroke subtypes have suggested distinct dose-response relationships. Blood pressure and HDL cholesterol mediate the effect of alcohol on coronary heart disease, but similar evidence on cerebrovascular diseases is not available.

Methods and Results—We studied the risk of stroke in 26 556 male cigarette smokers 50 to 69 years of age without history of stroke. The men were categorized as nondrinkers, light (≤ 24 g/d), moderate (25 to 60 g/d), or heavy (> 60 g/d) drinkers. A total of 960 men suffered from incident stroke: 83 with subarachnoid and 95 with intracerebral hemorrhage, 733 with cerebral infarction, and 49 with unspecified stroke. The adjusted relative risk of subarachnoid hemorrhage was 1.0 in light drinkers, 1.3 in moderate drinkers, and 1.6 in heavy drinkers compared with nondrinkers. The respective relative risks of intracerebral hemorrhage were 0.8, 0.6, and 1.8; of cerebral infarction, 0.9, 1.2, and 1.5. Systolic blood pressure attenuated the effect of alcohol consumption in all subtypes of stroke, whereas HDL cholesterol strengthened the effect of alcohol in subarachnoid hemorrhage and cerebral infarction but attenuated the effect in intracerebral hemorrhage.

Conclusions—Alcohol consumption may have a distinct dose-response relationship within each stroke subtype—linear in subarachnoid hemorrhage, U-shaped in intracerebral hemorrhage, and J-shaped in cerebral infarction—but further studies are warranted. Systolic blood pressure and HDL cholesterol seem to mediate the effect of alcohol on stroke incidence, but evidently additional mechanisms are involved.

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Key Words: alcohol • blood pressure • HDL cholesterol • stroke

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